

ABSTRACT OF THE DISCLOSURE

SYSTEMS FOR CONTROLLING PLANT AND FLOWER
MOISTURE TRANSPIRATION RATES

5

Steven Daryl Smith
Mark William Hamersky

10 The present invention relates to a system for controlling plant and flower moisture transpiration and thereby extending the period of time in which cut flowers can be displayed before senescence produces a flower which has exceeded its aesthetic value. The systems of the present invention comprise:

- 15 a) a first component in the form of a solution, said solution applied to the surface of a plant or flower exposed to air, said first component comprising:
- i) a polymer having a water vapor transfer rate of less than $10 \text{ g-mm/m}^2\text{-day}$ and a glass transition temperature, T_g , greater than about 30°C ;
- ii) the balance carriers and adjunct ingredients;
- wherein said polymer is in the form of a microemulsion having a particle size less than 400 nanometers; and
- 20 b) a second component comprising:
- i) a source of energy for the plant or flower being treated;
- ii) an antimicrobial;

wherein said second component is dissolved in water to form a solution and into which solution is placed the plant or flower to be preserved.